IN THE CLAIMS:

Please amend the claims as follows:

1-166. (cancelled)

167. (currently amended) A method for transmitting ultrasonic beams into a region in a medical diagnostic imaging system, said method comprising:

(a) transmiting a plurality of spatially distinct ultrasonic transmit beams corresponding to a frame into a region;

(b) during (a), cycling a selected transmit parameter T through a sequence $T_1 \ldots T_n$; $T_1 \ldots T_n$; $T_1 \ldots T_n$ across said at least a portion of the frame, where T_1, T_n designate alternative values of the transmit parameter T, and where $n \geq 2$;

(c) receiving a plurality of ultrasonic receive beams from the region and corresponding to the frame, each receive beam associated with a respective one of the transmit beams; and

(d) combining at least two of the receive beams of the frame and associated with spatially distinct ones of the transmit beams.

168. (previously presented) The method of Claim 167 wherein (d) comprises summing the at least two of the receive beams.

169. (previously presented) The method of Claim 167 wherein (d) comprises coherently summing said at least two of the receive beams to form the composite signal.

170. (previously presented) The method of Claim 167 wherein (b) comprises alternating by one of a: line-by-line and group-of-lines by group-of-lines basis.

171. (previously presented) The method of Claim 167 wherein the transmit parameter T comprises transmit waveform phase.

172. (currently amended) A method for transmitting ultrasonic beams into a region in a medical diagnostic imaging system, said method comprising:

(a) transmiting a plurality of spatially distinct ultrasonic transmit beams corresponding to a frame into a region;

(b) during (a), cycling a transmit waveform phase T through a sequence $T_1 \ldots T_n$; $T_1 \ldots T_n$; $T_1 \ldots T_n$ across said at least a portion of the frame, where T_1, T_n designate alternative values of the transmit waveform phase T, and where $n \geq 2$; and

(c) combining at least two of receive beams of the frame associated with spatially distinct ones of the transmit beams.

173. (previously presented) A method for transmitting ultrasonic beams into a region in a medical diagnostic imaging system, said method comprising the following steps:

(a) transmitting respective sets of transmit beams along respective scan directions across at least a portion of a frame;

(b) during (a), cycling a selected transmit parameter T through a sequence $T_1 \ldots T_n$; $T_1 \ldots T_n$; $T_1 \ldots T_n$ across said at least a portion of the frame, where T_1, T_n designate alternative values of the transmit parameter T, and where $n \geq 2$, the transmit parameter being a pulse inversion polarity sequence where T_1 corresponds to a pulse inversion polarity sequence (+ -), T_2 corresponds to a pulse inversion polarity sequence (- +), and $n = 2$; and

(c) combining at least two of receive beams associated with spatially distinct ones of the transmit beams.

174. (previously presented) A method for transmitting ultrasonic beams into a region in a medical diagnostic imaging system, said method comprising the following steps:

(a) transmitting respective sets of transmit beams along respective scan directions across at least a portion of a frame;

(b) during (a), cycling a selected transmit parameter T through a sequence $T_1 \ldots T_n$; $T_1 \ldots T_n$; $T_1 \ldots T_n$ across said at least a portion of the frame, where T_1, T_n designate alternative values of the transmit parameter T, and where $n \geq 2$, the transmit parameter T selected from

the group of: (i) transmit waveform, (ii) transmit phase modulation code, (iii) transmit amplitude modulation code, (iv) transmit waveform complex phase angle, (v) fractional harmonic seed amplitude, (vi) pulse inversion polarity sequence where T_1 corresponds to a pulse inversion polarity sequence (+ -), T_2 corresponds to a pulse inversion polarity sequence (- +), and n = 2, (vii) pulse inversion polarity sequence, (viii) transmit gain, and (ix) combinations thereof; and

(c) receiving a plurality of ultrasonic receive beams from the region, each receive beam associated with a respective one of the transmit beams.

175. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit frequency.

176. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit aperture.

177. (previously presented) The method of Claim 174 wherein the transmit parameter comprises transmit waveform.

178. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit phase modulation code.

179. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit amplitude modulation code.

180. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit waveform complex phase angle.

181. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises fractional harmonic seed amplitude.

182. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises pulse inversion polarity sequence, wherein T_1 corresponds to a pulse inversion polarity sequence (+ -), wherein T_2 corresponds to a pulse inversion polarity sequence (- +),

and wherein n = 2.

183. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises pulse inversion polarity sequence.

184. (previously presented) The method of Claim 174 wherein T_1 and T_2 correspond to respective pulse inversion polarity sequences that begin with opposite polarity.

185. (previously presented) The method of Claim 174 wherein the transmit parameter T comprises transmit gain.

186. (previously presented) The method of Claim 174 wherein each set of transmit beams includes only one respective transmit beam.

187. (previously presented) The method of Claim 174 wherein each set of transmit beams includes only two respective beams.

188. (previously presented) The method of Claim 174 wherein each set of transmit beams includes more than one transmit beam.

189. (previously presented) The method of Claim 174 wherein the transmit parameter comprises at least two separately variable transmit parameters.

190. (previously presented) The method of Claim 174 wherein all of the transmit beams of act (a) are configured for a single ultrasound imaging mode.

191. (previously presented) The method of Claim 190 wherein all of the transmit beams of act (a) are B-mode transmit beams.

192. (previously presented) The method of Claim 190 wherein all of the transmit beams of act (a) are Doppler-mode transmit beams.

193. (previously presented) The method of Claim 190 wherein each set of transmit beams includes only two respective beams.

194. (previously presented) The method of Claim 190 wherein each set of transmit beams includes more than one transmit beam.